

REMARKS

Claim Rejections - 35 USC § 103

Claims 1-2, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievers et al in view of Wilson et al (EP '424). While the Sievers et al reference is not specifically identified, it is assumed that the Examiner is referencing Sievers et al. USP 4,970,093, included in the Supplemental Information Disclosure Statement mailed March 13, 2006. Confirmation is respectfully requested.

The Examiner states Sievers discloses a process for applying a desired substance on a surface where a particle formation vessel is charged, the temperature and pressure in which are controlled, with a compressed fluid; there is introduced into the particle formation vessel at least a first feed stream comprising at least a solvent and the desired substance dissolved therein through a first feed stream introduction port and a second feed stream comprising the compressed fluid through a second feed stream introduction port; the feed stream is dispersed in the compressed fluid, allowing extraction of the solvent into the compressed fluid and precipitation of particles of the desired substance (col 7, lines 50-65; col 8, lines 5-10). The Examiner further states Sievers et al does not explicitly disclose a rate substantially equal to a rate of addition of such components to the while maintaining temperature and pressure in the vessel at a desired constant level, such that formation of particulate material in the vessel occurs under essentially steady-state conditions; Wilson et al (EP '424) discloses exhausting the compressed fluid, solvent and the desired substance from the particle formation vessel at a rate substantially equal to a rate of addition of such components to the while maintaining temperature and pressure in the vessel at a desired constant level (page 11, lines 7-31); and that it would have been obvious to one with ordinary skill in the art to include such because Wilson et al teaches the importance of control (col 11, lines 9-10). This rejection is respectfully traversed.

Contrary to the Examiner's assertions, Sievers does not disclose a process wherein a particle formation vessel is charged with a compressed fluid and into which is introduced a first feed stream comprising at least a solvent and a desired substance dissolved therein through a first feed stream introduction port and a second feed stream comprising the compressed fluid through a second feed

stream introduction port, where the feed stream is dispersed in the compressed fluid, allowing extraction of the solvent into the compressed fluid and precipitation of particles of the desired substance. Rather, Sievers describes a RESS (rapid expansion of supercritical solutions) type process (as discussed at page 1, lines 15-24 of the present specification), wherein particles are formed upon expansion of a supercritical fluid solution. Note the description of the process in the paragraph bridging columns 6 and 7 of Sievers, where it is explained that particles are not formed in the pressurized solution reservoir 14, but rather upon expansion of the supercritical solution through a restrictor orifice 18 in deposition chamber 20. The particles are formed and deposited in chamber 20 upon expansion of the supercritical solution, they are not formed in a particle formation vessel charged with a compressed fluid and subsequently exhausted from the particle formation vessel under essentially steady-state conditions. Col 7, lines 50-65 and col 8, lines 5-10 must be read in the context of the remaining description, in which context it is clear that Sievers is directed towards formation of vapor or aerosol particles only upon rapid expansion of the compressed supercritical fluid.

The Examiner's further reliance upon Wilson et al is also misplaced, as Wilson et al is directed towards the use of supercritical fluids as diluents in liquid spray application of coatings, not the formation of particles in a particle formation vessel charged with compressed fluid upon introduction of feed stream comprising a solvent and a desired substance dissolved therein allowing extraction of the solvent into the compressed fluid and precipitation of particles of the desired substance. Note, e.g., that the liquid coating compositions are supplied to coating spray dispensers 12 for deposition onto a substrate. As neither of such references are directed towards precipitation of particles in a particle formation vessel charged with compressed fluid upon introduction of feed stream comprising a solvent and a desired substance dissolved therein, the proposed combination clearly can not teach or suggest the claimed invention and a prima facie case of obviousness has not been established. Reconsideration of this rejection is accordingly respectfully requested.

Claims 3-4, 11-13, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievers et al in view of Wilson et al (EP '424) as applied

to claims above, and further in view of Smith. The Examiner states Sievers et al and Wilson et al (EP '424) do not disclose restrictive passage as claimed and producing from the discharge device shaping as further claimed; Smith discloses compressed fluid, solvent and the desired substance exhausted through a restrictive passage to a lower pressure whereby the compressed fluid is transformed to a gaseous state (fig 5), where the restrictive passage includes a discharge device that produces a shaped beam of particles of the desired substance at a point beyond an outlet of the discharge device, where the fluid is in a gaseous state at a location before or beyond the outlet of the discharge device (114) and the cone angle appears to be within that as recited by applicant; and that it would have been obvious to one with ordinary skill in the art to include restrictive passage as claimed and producing from the discharge device shaping as claimed because Smith teaches the importance of control. This rejection is respectfully traversed.

Smith also does not disclose a process wherein a particle formation vessel is charged with a compressed fluid and into which is introduced a first feed stream comprising at least a solvent and a desired substance dissolved therein through a first feed stream introduction port and a second feed stream comprising the compressed fluid through a second feed stream introduction port, where the feed stream is dispersed in the compressed fluid, allowing extraction of the solvent into the compressed fluid and precipitation of particles of the desired substance. Rather, similarly as with Sievers, Smith describes a RESS type process wherein particles are formed upon expansion of a supercritical fluid solution. Note in Fig 4 of Smith that particles are not formed in a particle formation vessel charged with compressed fluid, but rather upon expansion of a compressed fluid solution from transfer line 216 into a vacuum chamber 218. The particles are formed and deposited in vacuum chamber 218, not formed in a particle formation vessel charged with a compressed fluid and subsequently exhausted from the particle formation vessel under essentially steady-state conditions. Thus, the further reliance of Smith fails to overcome the deficiencies of the Sievers and Wilson et al references with respect to the present claimed invention. As none of such references are directed towards precipitation of particles in a particle formation vessel charged with compressed fluid upon introduction of feed stream comprising a solvent and a desired substance

dissolved therein, the proposed combination clearly can not teach or suggest the claimed invention and a prima facie case of obviousness has not been established. Reconsideration of this rejection is accordingly respectfully requested.

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievers et al in view of Wilson et al (EP '424) as applied to claims above, and further in view of Fulton et al. This rejection is respectfully traversed.

Similarly as Sievers, Fulton describes a RESS type process wherein particles are formed upon expansion of a supercritical fluid solution. Thus, the further reliance of Fulton fails to overcome the deficiencies of the Sievers and Wilson et al references with respect to the present claimed invention. As none of such references are directed towards precipitation of particles in a particle formation vessel charged with compressed fluid upon introduction of feed stream comprising a solvent and a desired substance dissolved therein, the proposed combination clearly can not teach or suggest the claimed invention and a prima facie case of obviousness has not been established. Reconsideration of this rejection is accordingly respectfully requested.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievers et al in view of Wilson et al (EP '424) as applied to claims above, and further in view of Fu et al. This rejection is respectfully traversed.

The additional reference to Fu et al. does not overcome the basic deficiencies of the primary references with respect to the present claimed invention, as Fu et al merely states that supercritical carbon dioxide may be used as a solvent for polymerization. As none of such references are directed towards precipitation of particles in a particle formation vessel charged with compressed fluid upon introduction of feed stream comprising a solvent and a desired substance dissolved therein, the proposed combination clearly can not teach or suggest the claimed invention and a prima facie case of obviousness has not been established. Reconsideration of this rejection is accordingly respectfully requested.


Double Patenting

Claims 1, 2, 6-10, 14, 17,18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,2,4-9, 11,12 of copending Application No. 10/815,026. A terminal disclaimer is submitted herewith to advance prosecution.

Claims 1, 2, 6-10, 14, 17, 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 9-18 of copending Application No. 10/814,354. A terminal disclaimer is submitted herewith to advance prosecution.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



Attorney for Applicant(s)
Registration No. 33,564

Andrew J. Anderson/vjr
Rochester, NY 14650
Telephone: (585) 722-9662
Facsimile: (585) 477-1148

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.